

Application No.: 10/658236
Docket No.: UC0013USNA

Page 2

Amendments to Claims

1. (Original) An organic electronic device comprising a first electrode, a second electrode, and an organic active layer, wherein:
the first electrode lies on an opposite side of the organic active layer compared to the second electrode; and
at least one layer selected from the first electrode, the second electrode, a hole-transport layer, an electron-transport layer, and the organic active layer is configured to achieve low $L_{\text{background}}$.
2. (Canceled)
3. (Original) The organic electronic device of claim 1 or the process of claim 2, wherein the at least one layer has a thickness in a range of d_1 - d_2 , wherein d_1 and d_2 are determined by:
$$2\eta d_1 \cos(\theta) + \phi = (m+1/4)/\lambda \quad (\text{Equation 1})$$
$$2\eta d_2 \cos(\theta) + \phi = (m+3/4)/\lambda \quad (\text{Equation 2})$$
wherein:
 η is a refractive index of a material of the at least one layer at a specific wavelength (λ);
 d_1 is a first thickness of the at least one layer;
 d_2 is a second thickness of the at least one layer;
 θ is an angle of incident radiation;
 ϕ is a total phase change of radiation reflected by an ideal reflector at λ ;
 m is an integer; and
 λ is the specific wavelength.
4. (Canceled)
5. (Original) An organic electronic device comprising:
an organic active layer; and
a first electrode having a side opposite the organic active layer, wherein:
the first electrode comprises a first electrode layer lying at the side opposite the organic active layer; and
the first electrode layer is configured to achieve low $L_{\text{background}}$.
6. (Original) The organic electronic device of claim 5, further comprising a second electrode, wherein:
the organic active layer lies between the first electrode and the second electrode;
a second electrode has a side opposite the organic active layer; and
the second electrode comprises a second electrode layer lying at the side opposite the organic active layer; and

Application No.: 10/658236
Docket No.: UC0013USNA

Page 3

wherein the second electrode layer is configured to achieve low $L_{\text{background}}$.

7. (Canceled)

8. (Canceled)

9. (Original) The organic electronic device of claim 5 or the process of claim 7, wherein the first electrode layer has a thickness in a range of d_1 - d_2 , wherein d_1 and d_2 are determined by:

$$2\eta d_1 \cos(\theta) + \phi = (m+1/4)/\lambda \quad (\text{Equation 1})$$

$$2\eta d_2 \cos(\theta) + \phi = (m+3/4)/\lambda \quad (\text{Equation 2})$$

wherein:

η is a refractive index of a material of the first electrode layer at a specific wavelength (λ);

d_1 is a first thickness of the first electrode layer;

d_2 is a second thickness of the first electrode layer;

θ is an angle of incident radiation;

ϕ is a total phase change of radiation reflected by an ideal reflector at λ ;

m is an integer; and

λ is the specific wavelength.

10. (Original) The organic electronic device of claim 5 or the process of claim 7, wherein an interfacial reflectivity is no greater than about 30 percent, wherein the interfacial reflectivity is determined by:

$$R = \frac{I_{\text{reflected}}}{I_{\text{incident}}} = \left(\frac{\eta_x - \eta_y}{\eta_x + \eta_y} \right)^2 \quad (\text{Equation 3})$$

wherein:

η_x is a refractive index of the first electrode layer; and

η_y is a refractive index of a material lying immediately adjacent to the first electrode layer.

11. (Original) The organic electronic device of claim 5 or the process of claim 7, wherein the first electrode layer comprises a metal selected from a transition metal and an elemental metal.

12. (Original) The organic electronic device or process of claim 11, wherein the metal is selected from a group consisting of Au, Cr, Si, and Ta.

13. (Original) The organic electronic device or process of claim 11, wherein the first electrode layer further comprises an oxide of the metal.

14. (Canceled)

15. (Canceled)

16. (Canceled)

Application No.: 10/658236
Docket No.: UC0013USNA

Page 4

17. (Canceled)

18. (Canceled)

19. (Original) The organic electronic device of claim 1 or 5 or the process of claim 2, 7, 14, or 18, wherein the organic electronic device is selected from the group of light-emitting displays, radiation sensitive devices, photoconductive cells, photoresistors, photoswitches, photodetectors, phototransistors, and phototubes.